

- Targeted Case Management and Provider Training Sessions
 - June 6,7,&10, 2002
 - Steve Cook
 - Director, Bureau of Developmental Disabilities Services

TCM Training

- Seizure Disorders
- Choking and Dysphagia
- Incidents Resulting in Emergency Room Care

TCM Training

- Defining the issue/problem (rate of incidence (etc)
- Review and understanding the provider standard(s) related to the issue/problem
- Examples of suggested “best practices” related to the issue/problem

TCM Training

- Seizures-Pre-test
 - What is the rate of seizures in the general population ?
 - What is the rate of seizures in the MR/DD population ?
 - How many seizure incidents are reported monthly/annually to BDDS/BQIS ?
 - What is the outcome of most seizure incidents reported to BDDS/BQIS?

TCM Training

- What is a seizure (definition) ?
- What are the different types and characteristics of seizures ?
- What is an aura ?
- What is an EEG ?
- What drugs are typically used to control seizures ?
- What is “status epilepticus ?

TCM Training

- What does the term “postictal state” mean ?
- What types of information is important to record if you directly observe someone to have a seizure ?

TCM Training

- Seizures

- “A seizure is the response to an abnormal electrical discharge in the brain” The term seizure describes various experiences and behaviors resulting from an abnormal electrical discharge in the brain.

Experiences and behaviors range from odd taste or smell to jerking and spasms of muscle throughout the body. The individual may experience altered consciousness, lose consciousness, muscle control or bladder control

TCM Training

- Seizures
 - Overall, 2 percent of the adult population has a seizure at some time.
 - One third of this group has recurring seizures (epilepsy).
 - It is estimated that about 20 percent of the population with MR/DD have seizures.
 - Between June of 2001 and June 2002 there were 382 incidents where an individual experienced a seizure and it resulted in trip to a hospital ER room, hospital admission or physician services.

TCM Training

- Types of Seizures
 - Simple partial seizures-electrical discharges are assumed to involve a smaller part of the brain with the individual experiencing abnormal sensations, movements or psychic aberrations. Examples are right arm will shake or jerk, intense pleasant or unpleasant smell, a sense of déjà vu where unfamiliar surroundings seem familiar.
 - Jacksonian seizures symptoms begin in one isolated part of the body such as a hand and then appear to “march up” the limb.
 - Complex partial (also known as psychomotor seizures) seizures tend to begin with 1-2 minute periods where the individual loses touch with their surroundings. The person may stagger and move in purposeless ways, utter meaningless sounds and resist help because they lack understanding of what is said to them. Confusion usually lasts for several more minutes (beyond the 1-2 minute time frame).

TCM Training

- Convulsive Seizures (also known as grand mal or tonic clonic seizures) is characterized by rapid widespread malfunction with convulsions as the body's reaction to the abnormal discharges. The person experiences a temporary loss of consciousness, severe muscle spasms and jerking throughout the body, teeth clenching, loss of bladder control. After the seizure, the person usually feels very tired, may have a headache, is usually temporarily confused and often does not remember what happened during the seizure.

TCM Training

- Petit mal (also known as absence) seizures usually do not produce convulsions and other dramatic symptoms seen in grand mal seizures. Instead the characteristics of petit mal seizures are episodes of staring, fluttering eyelids or twitching facial muscles that usually last less than a minute. The person is unresponsive but usually does not fall down or experience jerky motor movements.

TCM Training

- Seizures
 - Seizures are sometimes preceded by unusual sensations of smell, taste or vision or a fairly intense feeling that a seizure is about to begin. This is known as an aura.
 - About 20 percent of the people with epilepsy experience auras

TCM Training

- Status Epilepticus-the seizure does not stop. This is a medical emergency because a person experiencing convulsions with intense muscle contractions is not able to breathe properly. The heart and brain can be overtaxed, damaged and death could result.

TCM Training

- Diagnosis
- EEG-electroencephalogram measures the electrical activity in the brain.
- Blood levels to measure sugar, calcium and sodium in the blood help determine if liver and kidneys are functioning properly
- Abnormal heart rhythm's can decrease blood flow to the brain and cause seizures.
- CT (computed tomography) or MRI (magnetic resonance imaging) may be used to evaluate brain function and damage.

TCM Training

- Treatment
 - Why do we try to prevent seizures
 - contractions can cause bodily harm
 - falls from loss of consciousness
 - electrical turbulence can cause minor brain damage

TCM Training

- Treatment
 - Antiseizure drugs completely prevent grand mal seizures in more than half the people with epilepsy
 - Antiseizure drugs completely prevent petit mal seizures in approximately 50% of the cases.
 - Some individuals respond to a single drug while others require poly drug therapy.

TCM Training

- Types of Seizure Medications
 - Caramazepine
 - Ethosuximide
 - Gabapentin
 - Lamotrigine
 - Phenobarbital
 - Phenytoin
 - Primidone
 - Valproate

TCM Training

- Side effects of antiseizure drugs
 - Drowsiness
 - hyperactivity in children
 - kidney functions
 - liver functions
 - blood cell level production and counts
 - Rash
 - Swollen gums
 - weight gain
 - hair loss

TCM Training

- The introduction of any drug taken at the same time as an antiseizure medication should be approved by a physician since they may alter the amount of antiseizure drug in the blood.

TCM Training

- Epileptic seizures may be triggered by:
 - repetitive sounds
 - flashing lights
 - video games
 - touching certain parts of the body
 - certain drugs
 - low levels of oxygen in the blood
 - very low levels of sugar in the blood

Seizure Best Practices

Seizure management plans

Good seizure records (eyewitness report)

- Describe exactly what happened
- Accurate description of circumstances surrounding the episode
- How fast did it start
- Were abnormal muscle movement involved, and if so, where?
Head, neck, face, tongue biting.
- How long did it last
- How quick did the person recover
- Was there a premonition/warning
- Was there a possible precipitating event - certain sounds
- Where did it occur
- What time did it occur

Seizure Best Practices

A picture is worth a thousand words--so graph it !!!

Notify the physician

Track lab appointments and results

Know the history

Recognize a change

See the entire person and all of their conditions in the seizure management plan

Prevent a seizure

Dysphagia

What is Dysphagia?

Describe dysphagia symptoms?

What are causes of dysphagia?

How many times each day do you swallow?

What are the most significant consequences of dysphagia?

What are typical diagnostic procedures for dysphagia?

How is dysphagia treated?

How many reportable incidents involving choking were reported last year to BDDS?

How many individuals have died as a direct/indirect result of dysphagia/choking since February 2000?

Dysphagia is defined as difficulty or discomfort in swallowing. It is believed that two thirds of individuals in “long term care” suffer from dysphagia. The ability to swallow is the physiological function essential to the maintenance of life.

Since the FSSA mortality review committee was formed in February of 2000, 6 deaths have occurred directly or indirectly related to dysphagia. (6 choking, 25 aspiration/pneumonia)

Annually, 40 reportable incidents involving choking have occurred.

Consequences of dysphagia include aspiration pneumonia, malnutrition and dehydration.

Swallowing

We average 580 swallows per day !

The normal swallow consists of four stages

- ✓ Initial stage (voluntary control) food and liquid to the mouth which results in saliva being produced. The mouth is sealed.
- ✓ Oral stage (voluntary control) food is positioned by the tongue, mixed by the teeth and formed into a ball. The tongue then propels the food ball to the back of the mouth into the pharynx.
- ✓ Pharyngeal stage (automatic) the food ball passes from the mouth via the pharynx into the Oesophagus (tube which connects to the stomach). The larynx automatically closes to prevent food or liquid from passing into the airways.
- ✓ Oesophageal stage (automatic) is when the food ball passes down the oesophagus into the stomach.

Symptoms of Dysphagia

- ✓ Loss of appetite and/or weight loss
- ✓ Food sticking in throat
- ✓ Choking on food, liquid or saliva
- ✓ Pain when swallowing
- ✓ Drooling
- ✓ Discomfort in the throat or chest
- ✓ Heartburn/acid reflux

✓ Causes of Dysphagia

- ✓ Neurological problems
- ✓ Head and neck tumors
- ✓ Gastro-oesophageal reflux
- ✓ Swallowing poisons/burns

Consequences of Dysphagia

- ✓ Aspiration and pneumonia--food or liquid passing into the pharynx and entering the airways. Aspiration may be associated with the development of pneumonia. Example - study of persons who died within 1 year of a stroke revealed 20% of the deaths were the result of aspiration pneumonia.
- ✓ Malnutrition and dehydration--poor nutritional status is associated with other serious health risks such as poor wound healing, skin breakdown, increased incidence of infection, impaired physical function, increased seizures ...

Diagnosis of Dysphagia

- ✓ Assessment of oral function, cough, swallowing and laryngeal function usually completed by a speech and language therapist or doctor.
- ✓ Evidence of a gag reflex is not sufficient to ensure safe swallowing without risk of aspiration.
- ✓ Specialty diagnostic procedures include:
 - Flexible larynoscope
 - X-ray involving a barium swallow
 - Endoscopy to examine GI tract
 - Modified barium swallow or videofluoroscopy, a video-recorded radiological procedure that allows examination of all phases of the swallowing process using different food consistencies (liquid, semi-solid, solid)

Treatment of Dysphagia

- ✓ Don't assume liquids are easier to swallow !!
- ✓ Training new ways to swallow
- ✓ Muscle exercises
- ✓ Positioning, especially positioning of the head
- ✓ Modification of food preparation
- ✓ Nutritional therapy
- ✓ Adding thickeners for persons unable to swallow liquids
- ✓ Avoid hot/cold drinks
- ✓ Serve food with sour flavor such as lemon to evoke swallowing mechanism
- ✓ Feeding tube for persons who can no longer consume foods and liquids by mouth, thus bypassing the part of the swallowing mechanism that is not properly working.

Best Practices

- ✓ Dining plans with pictures and training
- ✓ Review incidents with choking
- ✓ Consider persons as “high risk” after any incident of choking
- ✓ Timely evaluations
- ✓ Good communication among all staff. PT gets an individual a new wheelchair with customized seating/position. The new position results in choking episodes during meals. The nurse requests a medical consult and the doctor changes a medication to decrease spasticity which results in choking episodes during meals.
- ✓ Individualized knowledge is recorded